

Climate Literacy Survey – Version III

FILE COPY

The questions in this survey will ask what you know and think about global climate change, and about some of the personal choices you make. Please answer the questions truthfully and to the best of your ability.

This survey is being administered as part of project that has received full approval by the Clarkson University Institutional Review Board (IRB# 10-24)

Keep in mind: This is a SURVEY, not a test. Your answers are very important because we need to understand what people know and think about climate change issues. With that in mind, please do your best to answer each question as well as you can. If you absolutely don't know the answer, choose the "I don't know" answer choice where available.

Your complete answers on this survey, including the personal information at the beginning, will help us with our research on climate literacy. There are different sections on the survey, and some have very different answer choices, so be sure to read each section carefully before answering. Complete the entire survey – you do not need to stop between sections. Feel free to ask any questions at any time. Thank you for your help!

For questions about this survey, please contact:

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Before we get started, consider the following list of environmental problems. Which do you consider to be the MOST important problem facing the United States today?

Air pollution
Water pollution
Loss of species to extinction
Destruction of ecosystems
Overpopulation
Toxic waste
Climate change
Urban sprawl
Smog
Acid rain
Rain forest loss
Ozone depletion

Section 1. Fill in the circle on your answer sheet for the letter of the answer that best matches your response to the following questions. Be honest, remember - this is not a test!

1. (8) How much do you feel you know about global climate change?
 - A. A lot - expert
 - B. Quite a bit - informed
 - C. A “medium” amount – somewhat informed
 - D. Not much – novice
 - E. Nothing – not in the running
2. (5) When it comes to energy use, how would you describe yourself?
 - A. High energy user
 - B. Moderately high energy user
 - C. Medium energy user
 - D. I try to save energy sometimes
 - E. I almost always try to save energy
3. (3) Of the following choices, which one thing has contributed most to your understanding of global climate change?
 - A. School
 - B. Internet, Books, newspapers, or magazines I have read on my own
 - C. Friends or family members (including parents)
 - D. Scientific publications
 - E. Television programs
4. (7) How convinced are you that global warming is happening?
 - A. Completely convinced
 - B. Mostly convinced
 - C. Not so convinced
 - D. Not at all convinced
 - E. I don’t know

5. (8) If global warming is happening, do you think it is caused mostly by human activities, or caused mostly by natural changes in the environment?
- A. Mostly by human activities
 - B. Mostly by changes in the natural environment
 - C. Caused equally by human activities and the natural environment
 - D. Global warming is not happening
 - E. I don't know
6. (7) When do you think global warming will start to have serious impacts on people around the world?
- A. Now – it's already having serious impacts
 - B. Within 10 years
 - C. Within my lifetime
 - D. Not within my lifetime, but it will seriously impact future generations
 - E. Never

Section 2. [0] (questions 7 through 10) Please indicate how serious you consider global warming to be a threat to each of the following, using the following answer choices:

- A. Urgent
- B. Very Serious
- C. Somewhat serious
- D. Not very serious
- E. No threat at all

- 7. Plants and animals
- 8. People in other countries
- 9. People in the United States
- 10. Your local community

Section 3. For questions 11 through 15, please choose the number that most closely matches how much you agree with each statement, using the following answer choices:

- A. Strongly agree
- B. Somewhat agree
- C. Neither agree nor disagree
- D. Somewhat disagree
- E. Strongly disagree

- 11. (2) Life on earth will continue without major disruptions only if we take immediate and drastic action to reduce global warming.
- 12. (4) I believe I can take actions that will help reduce global warming.
- 13. I believe that, by working with others, we can take actions that will help reduce global warming.
- 14. (3) The actions of a single person won't make any difference in reducing global warming.

15. (3) The actions of a single country like the United States won't make any difference in reducing global warming.

Section 4. (questions 16 and 17) How do you feel about each of the following possible ways for the federal or state governments to reduce global warming? Use the following answer choices:

- A. Strongly favor
- B. Somewhat favor
- C. Neither favor nor oppose
- D. Somewhat oppose
- E. Strongly oppose

16. (4) Requiring automakers to increase the fuel efficiency of cars, trucks, and SUVs to 35 miles per gallon, even if it meant a new car would cost up to \$500 more to buy.

17. (2) Increasing taxes on gasoline so people either drive less or buy cars that use less gas.

Section 5. For questions 18 through 26, please choose the number that most closely matches how often you currently do each of the activities described, when the situation arises. Use the following answer choices:

- A. Almost always or always
- B. Quite frequently
- C. Sometimes
- D. Quite rarely
- E. Hardly ever or never

18. Walk or bike to go short distances, instead of driving or asking for a ride in the car

19. (1) Avoid consuming pre-packaged, single serving sized snacks and drinks

20. (1) Buy fewer things in order to reduce global climate change

21. (2) Buy compact fluorescent light bulbs instead of incandescent bulbs

22. (3) Turn off your computer when you are done with it

23. (3) Turn off the lights when you leave the room

24. (1) Turn down the thermostat or air conditioner to save energy

25. (1) Use both sides of paper

26. (2) Recycle or return glass bottles, cans, paper, and plastic containers

Section 6. For each of the following questions, choose the **one best** answer. Fill in the circle for the letter of the answer on your answer sheet.

27. (9) The difference between weather and climate is:
- A. Weather is a day-to-day event while climate is a consistent pattern over a year or longer.
 - B. Weather is local, but climate is global.
 - C. Weather is predictable but climate is not.
 - D. Weather includes more variables like moisture and wind while climate just focuses on temperature and precipitation.
 - E. I don't know.
28. (7) Which of the following is the greenhouse gas that we are most concerned about when we think of global warming?
- A. carbon dioxide (CO₂)
 - B. water vapor (H₂O)
 - C. methane(CH₄)
 - D. oxygen (O₂)
 - E. ozone (O₃)
29. (7) Earth's atmosphere is warmer than it would be without a greenhouse gas effect. Energy at which wavelength is absorbed by the atmosphere and mainly causes this temperature increase?
- A. radio
 - B. infrared
 - C. visible
 - D. ultraviolet
 - E. x-ray
30. (6) Which of the following is a primary characteristic of greenhouse gases?
- A. They can destroy certain molecules in the atmosphere.
 - B. They bend and magnify sunlight entering the atmosphere.
 - C. They can trap certain molecules in the atmosphere.
 - D. They absorb moisture from the atmosphere.
 - E. They absorb energy at certain wavelengths but not all.
31. (5) Which of the following best describes the relationship between the greenhouse effect and global climate change?
- A. The greenhouse effect and global climate change are the same thing.
 - B. An increase in the greenhouse effect may be causing global climate change.
 - C. Global climate change may be causing an increase in the greenhouse effect.
 - D. The greenhouse effect and global climate change are likely unrelated.
 - E. There is no definite proof that either the greenhouse effect or global climate change exist.
32. (6) If human civilization had never developed on Earth, would there be a greenhouse effect?
- A. Yes, the greenhouse effect is caused by naturally occurring gases in the atmosphere.
 - B. Yes, the greenhouse effect is caused by plants giving off gases during photosynthesis.
 - C. No, the greenhouse effect is caused by humans burning fossil fuels and releasing pollutants.
 - D. No, the greenhouse effect is caused by humans depleting ozone in the atmosphere.
 - E. No, there is no conclusive evidence that the greenhouse effect exists.

33. (5) Which of the following countries is the single greatest contributor to greenhouse gas emissions?
- A. United States
 - B. India
 - C. Russia
 - D. China
 - E. I don't know

Section 7. Question 34 has more than one answer – **choose all that apply.**

34. [0] Which of the following services does NASA (National Aeronautics and Space Administration) provide with respect to global climate change? (choose all that apply)
- A. Disseminates educational programs and materials
 - B. Satellite measurements of earth and atmospheric observations
 - C. Modeling and predicting change in Earth's atmosphere and climate
 - D. Provides the general public with access to data
 - E. I have no idea

Section 8. True/False – for questions 35 through 38, choose the letter that corresponds to the answer to the best of your knowledge.

A = I am sure it's true

B = I think it's true

C = I think it's false

D = I am sure it's false

E = I don't know

35. (1) The Earth's climate has remained pretty much the same for millions of years.
36. (1) Global warming is happening because too many of the sun's rays get to the earth.
37. (0) Melting of snow and ice from land areas will likely result in rising sea levels.
38. (1) Global climate change is accelerated by the melting of snow and ice covered surfaces.

Section 9. (questions 39 through 41) Please indicate to the best of your knowledge which of the following is a cause of global climate change. Use the following answer choices:

A = I'm certain that it is a cause of global climate change

B = I think it is a cause of global climate change

C = I don't think it's a cause of global climate change

D = I'm certain that it's NOT a cause of global climate change

E = I don't know

39. Burning fossil fuels
40. The ozone hole in the upper atmosphere
41. Livestock (beef and pork) production

From the list above, which do you consider the most important cause of global climate change?

Section 10. (questions 42 through 47) Which of the following actions will help reduce or slow down climate change? Select from the following answer choices:

A = I'm certain that it will reduce global climate change

B = I think it will reduce global climate change

C = I don't think it will reduce global climate change

D = I'm certain that it will NOT reduce global climate change

E = I don't know

42. Building more nuclear power stations instead of coal power stations

43. Planting more trees in the world

44. Making more of our electricity from renewable energy resources

45. Recycling more

46. Not wasting electricity

47. Reducing air pollution from toxic chemicals

END

Thank You

Many items included in this questionnaire were adapted from other in-use, previously used, or draft surveys that measure to knowledge, attitudes, beliefs, values, and behaviors related to global climate change. Items were adapted from the following sources, with permission:

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